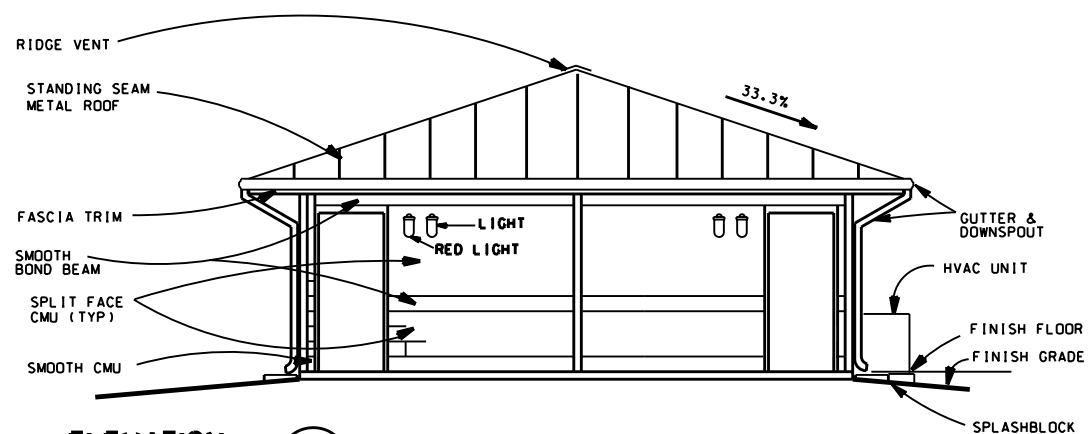


**ELEVATION**

SCALE : 1:100

A

A-11 | A-11



**ELEVATION**

SCALE : 1:100

A-11 A-11

B

## GENERAL

The After Action Review (AAR) facility provides space for personnel to review training exercises. Space is also provided for the installation of required electronics and communications equipment to prepare the review presentations and control rooms to monitor the presentations. When this standard is used for a Live Fire Exercise Shoothouse it is also used as a ROC. The occupant load factor is 9.3 net sq. meters (100 sq. feet) (per person) for the control room and 32 occupants for the classroom based on a business use. See NFPA 101 table 7.3.1.2. All dimensions not labeled are in millimeters.

## SITE ADAPTATION

This standard definitive design should be adapted to local conditions such as climate, available construction materials and techniques, topography, seismic zone, and the Installation Design Guide. These factors may affect plans, elevations and building systems. The building foundation must be designed based on the results of a geotechnical investigation.

### REFERENCE CRITERIA

The design and construction must comply with applicable codes and standards including: technical instruction TI 800-01, "Design Criteria"; Department of the Army regulations, technical manuals, handbooks, standards, and specifications.

## FUNCTIONAL REQUIREMENTS

A folding partition is provided in the classroom to provide the option for two smaller classrooms. The partition may be deleted based on installation requirements when the standard is used on a shoothouse; the AAR control rooms should be combined. Where topography allows viewing down range from the control room, windows can be placed for viewing. Windows are double hung to meet functional requirements providing viewing, natural light and ventilation. Windows have forced entry resistant metal frames and are provided with insect screens. Provide polycarbonate security glazing in windows and doors. One way glazing is provided between the control rooms and the classroom. Floors should be carpeted, carpeting should be a low pile, low static, easy to clean type. Gutter, downspout, and flash blocks should be provided where required by climatic conditions. Covered entries and ice guards may be necessary in northern climates. The AAR is accessed only by able-bodied personnel and does not require ADA compliance unless dictated by local criteria.

## MECHANICAL

The Mechanical Equipment shall be selected and sized based on site requirements, local weather design criteria, available energy sources, and building construction materials. U-Factor requirements are based on the local climatic conditions in accordance with TI 800-1. The mechanical system must be sized to maintain an equipment operating temperature of 74 F +/- 4 F in rooms containing range communication equipment. Obtain communication equipment heat release from targetry supplier for HVAC load calculations and equipment sizing. HVAC design for personnel comfort shall be based on the ductwork to provide an even distribution of conditioned air throughout the building to meet occupant comfort and outdoor air requirements. Provide diffusers and dampers to allow for manual balancing.

## ELECTRICAL

The AAR shall be served by 120/240V, 1 phase, 3-wire secondary power. Rigid steel conduit shall extend a minimum of 1524mm (5') outside of the building foundation for power and communication circuits entering and leaving the building. Voltage drop shall comply with standards in NEC and Army technical manuals. Grounding will be installed in accordance with NFPA 70, the NEC, and other applicable standards.

The panelboards shall be recess mounted in finished areas. Receptacles shall be general purpose, 120V, 20A Duplex mounted 450mm (18") above the finished floor. All outlets, receptacles, and conduit shall be recess mounted in finished areas. In the AAR Classroom provide a 120V, 20A duplex receptacles mounted to the ceiling near each projector, mount a 120V, 20A duplex receptacle in a convenient location for each projection screen, and provide a 120V, 20A duplex receptacles near each camera location. Provide a 120V, 20A duplex receptacle on a dedicated 20 amp circuit for each work station in the AAR development room. Provide 120/240V power for the HVAC unit.

Illumination levels will be designed in accordance with IES. Interior lighting shall consist of fluorescent lamps at a level of 50 foot-candles. Incandescent fixtures with red lamps on separate switching shall be placed near each fluorescent lamp in the Control Room and on exterior walls of entrance. Exterior lighting shall be provided with separate switching located near points of egress.

The emergency electrical system shall comply with NFPA 70 and NFPA 101. Emergency lighting shall be provided to ensure adequate illumination to egress building in the event of a power outage. Lightning protection in accordance with NFPA 780 and UFC 3-570-01 is required for this building in the form of pole mast protection or air terminals on the building.

## TELEPHONE

Telephone service is not a requirement for range operations. However, service should be provided to the AAR if it is available in the area.

## TARGETRY SYSTEM INTERFACE

The targetry system requires a fiber optic connection between the RDC and the AAR. Most ranges will only require one Data Termination Rack, except the Shoothouse range which will require three racks (one MCA provided and two OPA provided).

## FIRE PROTECTION

Fire protection is not required per fire codes for this building. Consult local Fire Marshall for compliance with local requirements.

